# Clinical Pathway: Total Laryngectomy

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| **Pre-Op** | • Address any pain issues  
• Review anatomic & physiologic changes after total laryngectomy (TL) & give diagram pre and post-op  
• Review all forms of alaryngeal voice restoration  
• Discuss projected rehabilitation course  
• Determine safest means of nutritional intake (i.e. tube feedings, PO, diet modifications, compensatory swallowing strategies)  
• Give patient, “Life as a Laryngectomy” to review prior to surgery  
• Give CareTip, “How You Can Help Your Loved One Before & After Total Laryngectomy” to the caregiver to review prior to surgery | Patient to make informed decision about best treatment option. If undergoing TL, SLP & MD to determine if candidate for tracheoesophageal puncture (TEP) & timing of TEP (primary or secondary)  
**MD**  
• History & Physical  
• Order Nutrition & SLP consult  
• Present at tumor board  
**SLP**  
• Pre & post op anatomic & physiologic changes & functional deficits  
• Stoma care  
• Determine responsibility of support system available  
• Alaryngeal speech options  
• If able, introduce patient to another total laryngectomy  
• Initiate artificial larynx training if unable to communicate verbally |
| **Post Op**  
**Day 0** | • Pain Control:  
  - Inform about pain control options: Medication options, timing, routes of administration  
  • Incision care:  
    - Per MD orders, usually clean & apply ointment to avoid crusting  
  • Stoma care:  
    - Reinforce importance of stoma care  
    - Suctioning & saline bullets (as needed)  
  • Heat & Moisture Exchangers (HME):  
    - Educate on how HME works & importance of removing it in anticipation or when beginning to cough  
    - Encourage 24 hr use of HME cassette  
    - Teach patient how to remove & replace XtraFlow HME cassette  
    - Monitor breathing resistance w/ XtraFlow HME cassette & if pt notes resistance, discard old & replace with new cassette  
  • Orient Patient to Room:  
    - Nurse call button  
    - Pain control pump if applicable  
    - Urinal if applicable  
  • Initiate Routine postop care:  
    - DVT prophylaxis, NGT cares, etc.  
  • Provide supplies for the patient at bedside:  
    - Laryngectomy Care kit  
    - HME Bedside Instruction Sheet  
    - Suction supplies  
    - Dry erase board  
    - Communication board  
    - Handheld mirror | **RN**  
• Post & review Bedside Instruction for Use of Provox® Laryngectomy Pulmonary Kits for proper use of HME cassette  
• Post Provox® HME Change Log at bedside  
• Encourage 24 hr use of HME cassette  
• Change HME cassette at least once every 24 hours & record change on Provox ® HME Change Log a bedside  
• Routinely assess breathing resistance through HME  
• Determine how the patient will communicate with RNs & MDs (i.e. writing tablet, gestures, communication board, smartphone)  
• Place note on the chart & advise unit clerk about communication deficits  
• Maximize anti-nausea medications  
• Follow-up on routine post-operative labs and CXR  
• Ensure appropriate position of feeding tube (if applicable)  
• Post-op check (hematoma, stomal patency, JP drain function, etc)  
• Make sure Provox® voice prosthesis is in place within the TEP, if indicated  
**MD**  
• Place Provox® XtraFlow HME cassette onto the Larytube upon exiting the OR  
• Enter post-op orders (meds, consults, nutrition, post-op nausea & pain management)  
• Order appropriate consults: nutrition, speech pathology (ST), physical therapy (PT)  
• F/u on routine post op labs and CXR  
• Ensure position of feeding tube as necessary  
• Post op check and note |
### TIME

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| Post Op Day 1 | • Review patient’s level of pain & discuss control options  
 • Use mirror and have them assess their incisions & stoma  
   - Begin the process of making the patient comfortable with their new anatomy  
 • Patient to observe stoma & incision care via handheld mirror  
   - Explain the use and importance of wearing HME 24/7, suction & saline bullets  
   - Reinforce need to remove HME when coughing  
   - Reinstruct on removal & replacement of HME cassette  
   - Instruct pt on how to monitor stomal patency  
 • Explain the purpose of feeding tube & initiate tube feedings if ordered by MDs  
 • Teach signs & symptoms of infection (erythema, warmth, edema, fever, chills increased pain) and importance of notifying RN and/or MD if noted  
 • Involve family and/or support system in all of above  
 • Establish temporary means of communication (artificial larynx, nurse call button, TTY, text messaging, communication device, other)  
 • Initiate artificial larynx training  
   - Have pt review the following Caretips, Artificial Larynx: Basic Training & What is an Artificial Larynx  
   - Educate patient on rationale for using artificial larynx  
   - Describe the various features of the device  
   - Explain care/use/maintenance of device  
   - Determine best placement of the device  
   - Demonstrate how to best ear train the pt’s family/caregivers  
 • Education re: tracheoesophageal (TE) voice prosthesis (VP), if indicated  
   - How to locate VP & determine adequate position  
   - How to clean VP with Provox brush  
   - What to do in case VP dislodges & give Care Tip, What To Do if Your Voice Prosthesis falls out of the Tracheoesophageal Puncture  
 | RN  
   - JP drain output and function - assure patency and appropriate functioning  
   - Ensure patient is utilizing HME 24/7 without significant breathing resistance  
   - Change HME cassette at least once every 24 hours & record change on Provox® HME Change Log at bedside  
   - Ensure stoma is clean and patent  
   - Assess neck for fullness, edema, erythema (signs of hematoma and/or fistula)  
   - Ensure adequate pain control  
   - Incentive Spirometry or Cough and deep breath 10x/hr while awake  
   - Make sure Provox® voice prosthesis is in place within the TEP, if indicated  
   - MD  
     • Assess for active bowel sounds and consider starting tube feeds slowly  
     • Reassess patient’s suctioning needs and modify orders as appropriate  
     • As tube feeds are being started, keep total fluids at 100-125 ml/hr  
     • Once switched to bolus, make sure adequate free water boluses have been ordered and are being tolerated prior to discontinuing IV fluids  
   - SLP  
     • Establish functional means of communication  
     • Determine the most appropriate artificial larynx for the patient  
     • Begin artificial larynx training  
     • Reinforce importance of patent stoma & 24hr use of HME  
     • Continue to reinforce adequate removal and replacement of HME cassette  
     • Engage caregiver in education process  
     • Explain and demonstrate stoma care  
     • Initiate how to identify adequate placement of voice prosthesis (VP)  
     • Show how to clean the voice prosthesis with Provox brush |
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| Post Op Day 2 | • Gradually shift patient care responsibility to the patient and their caregivers  
              • Encourage independent removal & replacement of HME  
              • Assist with stomal cleaning & suction as needed  
              • Assist with tube feedings  
              • Assist with changing of HME cassette every 24hr  
              • Assist with dressing changes, if indicated  
              • Use artificial larynx to communicate medical wants/needs  
              • Have pt & caregivers observe how to do tube feedings  
              • Continue to encourage independent identification & cleaning of VP & review Caretip, Daily Care of Your Voice Prosthesis  
              • Give patient & caregiver Caretip, Provox XtraHME – Let’s Get Started to review | MD  
              • Ambulate at least TID or per PT recommendations  
              • Assess patient’s tolerance of tube feedings and adjust accordingly  
              • Assess: neck, stoma, drains, bowel sounds, suctioning needs, pain control  
              • Foley removal order or document acceptable indication  
              RN  
              • Encourage patient to participate in own wound and stoma care  
              • Encourage patient and family to ask any questions or concerns  
              • Progressive activity:  
                • Patient should be ambulating by POD #2, advanced as they become “free” of tubes/lines  
                • Assess functionality of communication method  
              SLP  
              • Continue with artificial larynx training  
              • Continue to educate on identification and cleaning of VP  
              • Reinforce need for 24/7 use of HME  
              • Patient to review HME video  
              • Work with patient and caregiver on ear training with artificial larynx  
              • Gradually shift stomal care responsibilities to patient for independent care  
              • Have patient watch Benefits of Using a HME video on Atos Medical Website  
              • Schedule Laryngectomee Visitation if patient and caregiver ready |
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| **Post Op Day 3-5** | • Ensure that patient is able to explain the importance of stoma care, when to contact the MD or when to contact emergency response system and how.  
• Educate pt & caregivers on how to do tube feedings  
• Reinforce the function & importance of wearing a HME 24/7  
• Evaluate if the patient understands how to removed & replace the HME and when to change HME (i.e. at least every 24 hrs or when an increase in breathing resistance)  
• Educate pt & caregiver on removal and replacement of the Provox Larytube  
• Pt & caregiver understand what to do if the VP dislodges & explains if consequences if cannot replace it  
• Pt. able to clean VP independently, if indicated  
• Pt. able to independently demonstrate ability to remove, clean and replace the Larytube  
• Pt. able to independently clean the VP in situ with brush | **MD**  
• Continued assessment and modification (if needed) of: stoma, wounds, drains, feeding tolerance, suctioning needs, pain control  
• Ensure clear activity orders are written for each day as activity is advanced  
• Discuss anticipated discharge plans (d/c date, anticipated facility to d/c, medical supply & equipment needs & home health services needed) with patient, nursing staff, social worker, case manager and discharge coordinator  
• Insure that if any of the above home health needs are needed that they are set up prior to the weekend if the anticipated day of discharge is on the weekend  
| **RN**             | • Continue cares as previously listed for POD #2  
• Document any delay in progress of care and communicate with treatment team.  
• Continue to encourage patient participation in own wound and stoma care  
• Ensure understanding by patient of his change in anatomy and needs to be cared for daily  
• Communicate with care team regarding patient’s progress towards independence on the following items for discharge planning: stoma care, wound care, VP care, understanding of own anatomy, tube feeding, coping strategies, & support system.  
• Work with physicians, case manager, social worker, and discharge planner regarding anticipated discharge needs (i.e. equipment, supplies, assistance)  
| **SLP**          | • Continue with artificial larynx training to maximize communication  
• Educate pt & caregiver on removal and replacement of the Provox Larytube  
• Continue to educate on independent management of VP, if indicated | **MD** (ideally done the day before discharge)  
• Ensure that prescriptions have been printed and on the chart  
• Order all follow up outpatient visits (ENT, Speech, PT, Nutrition, etc)  
• Ensure that all medical supplies and equipment are ordered  
| **RN**             | • Make sure that the patient/Family has had all questions answered and ensure teach back of d/c instructions  
• Confirm that medical supplies & equipment will be delivered prior to discharge  
| **SLP**          | • Make sure that patient has a functional means of communication prior to discharge  
• Confirm that a follow up outpatient visit is ordered  
• If needed, confirm home health SLP ordered to work with artificial larynx training | **RN**  
• Make sure that the patient/Family has had all questions answered and ensure teach back of d/c instructions  
• Confirm that medical supplies & equipment will be delivered prior to discharge  

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